

ANNUAL REPORT OF THE CONSERVATION COMMITTEE

The objective of this Committee report constitutes an annual stocktaking of the status of matters having a relation to the conservation of bird life. The rapid tempo of modern civilization magnifies the importance of such yearly evaluations. It is our hope that the report will serve to allay fears in some instances, to alert ornithologists to problems of special concern, and to stimulate corrective action where needed.

The present Committee will complete its term in office with submission of the present report. The Committee has found the dispatching of its responsibilities both stimulating and satisfying. In simple words, we have enjoyed serving the Society in this manner. In addition to last year's annual report (Scott et al., 1961), the present Committee has contributed special reports on waterfowl conservation (Jahn, 1961), the status of grouse populations in North America (Hamerstrom, 1961), and the effects of insecticides on terrestrial birdlife in the Middle West (Hickey, 1961). We owe a debt of gratitude to many people who assisted with the work of the Committee.

Your Committee has been most encouraged during the past two years by evidence indicating that conservation related to birdlife is very much a live issue. While there have been some defeats and some delays, ornithologists have every reason to feel good about the progress being made.

The subject matter of this report has been organized by categories as in last year's report (Scott et al., 1961): Conservation Education, Land-Use Problems, Habitat Pollution, Control of Bird Populations, and Endangered Species and Subspecies.

CONSERVATION EDUCATION

Members of this Conservation Committee have experienced times of great concern about the apparent failure of conservation education. Evidence of the inability of substantial segments of the public to grasp the real meaning of conservation readily makes itself apparent in many forms. Often, after parks, nature trails, and recreation areas have been made available to the public at great expense and effort, an inability to understand and use such facilities properly is reflected in extensive vandalism. An increasing human population with more and more leisure time and a greater capability of using it (Scott, 1959: 385-386) makes corrective action a matter of considerable urgency.

It seems obvious to this Committee that conservation education, the common denominator in all conservation problems, is in serious need of revitalization and increased emphasis, beginning at the elementary school level.

Conservation is everyone's concern, and all people must be exposed to an understanding of the relationship of conservation to the well-being of our civilization. Thus, public and private schools become the most logical place for providing the basic training.

Elementary School Level.—Because, in our opinion, conservation is primarily a point of view, we believe that it can best be inculcated in children of grade-school age. At this time, children are most aware of and most curious about their natural environment: it is at this time, also, that they establish their relationship to the world around them and their basic attitude toward conservation is molded.

This educational philosophy has been actually tested in a very successful way in Elm Place and Green Bay Road Schools in Highland Park, Illinois, where an integrated curricular program, with natural history as its core, was set up for grades 1 through 8 by the superintendent, Mr. Jesse Lowe Smith. Children under his care were taught to appreciate the myriad life forms of nature and to desire their preservation. Under his direction, the schools maintained garden plots which the children tended, and a plant

house where native plants were studied and work was done with bulbs, seedlings, and specimen plants for home, garden, and classroom. The science room and many of the classrooms frequently had a wide variety of animal and bird visitors which teachers or pupils brought in for observation, and several grades maintained aquariums. There were numerous class field trips and projects, as well as individual ones, connected with contemporary environmental studies which were integrated with all branches of the curriculum. Responses from the children in all grades were enthusiastic; they worked hard on their own initiative, were vitally interested and, as many of them have later testified, acquired a life-long interest in conservation practices and natural history.

An example of the method used in Elm Place School may be taken from a third-grade project. The children built a replica of a pioneer village in their manual-training class, reproducing the natural surroundings of pioneer times in the prairie states and necessitating the learning of linear measurements. Flax and vegetables were grown; maple trees were tapped; hominy, crabapple jelly, and soap were made; earth pits were dug for the storage of root crops; vegetable dyes were prepared from wild plants; amber cane was crushed and boiled for syrup; books were read, either individually or in class sessions, describing the native flora and fauna and the agricultural, hunting, and land-improvement activities of the early settlers; pictures representing scenes of pioneer life were drawn and painted; stores and plays based on likely episodes in forest or village life were written and acted out by groups of children; the "pretend" pioneer tradesmen and craftsmen sold or bartered their goods, weighed and measured, and wrote up accounts.

The class made field trips to nearby woods, natural prairie sites, and neighboring farms (including a goat ranch) to learn something of regional plants and trees, cultivated crops, and farm animals. Only single plant specimens were taken for the class collection except when fruits, flowers, leaves, or bark were to be used in pioneer activity projects such as making ink and dyes from pokeweed, elderberry, and walnut hulls or gathering mustard greens for a pioneer "feast."

Mr. Smith's tenure lasted 32 years, and many grade-school generations have attested to the efficacy of his program. At his death in 1934, the schools continued to maintain his successful curriculum. It is significant that in the last two years modified requirements of the High Schools have made necessary a reduction of natural history studies in the seventh and eighth grades in order to place more emphasis on aspects of science connected with the space age. We feel that such demands on the curriculum constitute another reason for beginning the study of conservation in the elementary grades.

In Ohio, two conservation education guides for teachers in elementary grades are reported to have received national attention: *Chart of Conservation Concepts for Elementary Grades* and *A Guide to Teaching Conservation in Ohio Elementary Schools*.

Secondary School Level.—A new trend in conservation education which may lead the way in this much needed revitalization of our conservation program is being tested at the secondary-school level. The biology course needed at this level has been described by Dr. John Moore (Grobman, 1961:1255) of Columbia University as one which should provide the student with

"an understanding of: his own place in the scheme of nature, namely that he is a living organism and has much in common with all living organisms; the diversity of life and of the interrelations of all creatures; what man presently knows and believes regarding basic biological problems of evolution, development, and inheritance; the biological basis of many of the problems and procedures in medicine, public health, agriculture, and conservation; and examples of the historical development of the concepts of biology to show that these are dependent on the contemporary techniques,

technology, and the nature of society." It should also provide him with "an appreciation of the beauty, drama and tragedy of the living world."

While there is some evidence that biological science is unfortunately losing ground to space-age science in secondary and higher educational levels, there are also reassuring signs that the word *ecology* is going to receive greater attention than ever in high school biology. The new trend constitutes, in the opinion of this Committee, a most promising current development affecting conservation education and the most likely, therefore, to influence the future public and private management of birds as well as other renewable resources. As the new emphasis on ecology makes itself felt in the schools (Grobman, 1961), this trend, along with the new economic and political emphasis on outdoor recreation (Kennedy, 1962; ORRRC, 1962), could present a tide of opportunities that conservationists, who have long groped for ways to reach future citizens, should prepare themselves to take at the flood.

Ecology is receiving new emphasis among educators who are concerned about and responsible for instruction in the biological sciences. A remaking of teaching methods has been set in motion through the Biological Sciences Curriculum Study of the American Institute of Biological Sciences. This work was started on 1 January 1959, when the AIBS received a small initial grant from the National Science Foundation to organize the Biological Sciences Curriculum Study (Grobman, 1961). The project has proceeded under the general direction of a steering committee headed by Dr. Bentley Glass of Johns Hopkins University. Staff and direction from headquarters in Boulder, Colorado, have been supplied by Dr. Arnold B. Grobman.

Three experimental versions of *BSCS High School Biology* (text materials and teachers' handbooks) were tested during the 1960-61 school year by 118 teachers in different parts of the country, with 14,000 students involved. Traditional high-school biology books and teaching give greatest emphasis to the organ-tissue level of biology. The BSCS versions all give relatively less attention to the organ-tissue level and reflect new scientific discoveries and concepts on the molecular, cellular, and community (ecological) levels.

On the basis of the first-year tests, the preliminary versions were revised during a summer writing conference. The revised edition is being evaluated during the current term (1961-62) with 541 teachers and 52,000 students participating.

The "Green Version" in particular, which has been developed under the supervision of Dr. Marston Bates of the University of Michigan, uses the ecological approach. It (Grobman, 1961:1258)

takes the individual organism as the primary unit of study. It is concerned with how individuals are organized into populations, species, and communities, and with what organisms do and how they do it. It starts with cycles of energy and materials in the biosphere, then turns to such structural units as individuals, populations, and communities. Following the taxonomic diversity of animals, plants and micro-organisms, it deals with ecological diversity on land, in fresh water, in the seas; with geographical diversity among the continents and oceans; and then with the history of life and the problem of evolution. The student studies the cellular structures of organisms; genetics; the physiology and development of plants and animals; animal behavior, the relations of the parts to the functioning of the whole organism; and the human animal in the perspective of his biological setting.

The Blue Version (supervisor: Dr. Ingrith Deyrup, Barnard College) develops the fundamental biological concepts with stress on the ideas and experimental approach of physiology and biochemistry. It begins with the basis of life in the properties and organization of matter. It then moves to the activities of these organizations as seen in the capture and use of energy, then to the organ level, and finally to the level of the whole organism and of populations. Genetics is couched in terms of the conservation and modification of molecular organization from generation to generation; evolu-

tion is the basis for long-term changes in the development of diversity among living organisms. The treatment of certain open-ended biological problems which face man as a citizen of a socially organized community concludes the text presentation. (Grobman, 1961: 1257-1258).

The Yellow Version (supervisor: Dr. John Moore, Columbia University) begins with the whole organism, and man as exemplar of the animal, from a functional point of view. The traditional major functions are treated system by system, rarely going below the organ level. Next is a similar treatment for the green plant. . . . Concepts of evolution and adaptation are emphasized. . . . Then the student is confronted with the fundamental chemistry and dynamics of the living cell. . . . The remaining chapters concern microbiology, diversity in the plant and animal kingdoms, genetics, reproduction and development, and evolution. (Grobman, 1961:1258).

In all three versions, laboratory and field experience is more important than in most current biology courses, and the emphasis is different. Students not only examine materials but experiment and investigate open-end problems.

Dr. Hiden T. Cox (1962:3), executive director of the American Institute of Biological Sciences, regards the BSCS project as "the most important single contribution" the Institute has made, and reports that the anticipated "catalytic action" and "new vitality" for biology teaching "already has surpassed expectation."

Commercial publishers of textbooks have been asked to submit bids for publication of BSCS materials. These are expected to be generally available for classroom use in September 1963.

Outdoor Nature Centers.—For the effective teaching of ecology in biology courses, the outdoor laboratory would seem to be essential and irreplaceable. This is basic to the purpose for which four model Audubon Centers have been operated by the National Audubon Society and in the activities of the Society's Nature Centers Division, which seeks to encourage the establishment of Nature Centers under local sponsorship. The Natural Science For Youth Foundation, and the outdoor nature centers it sponsors, also have the objective of contributing to a better understanding of natural history and its related fields. This is also the aim of the "Natural Areas for Schools" program of the Nature Conservancy. There is evidence that this movement is also gathering momentum under community sponsorship as well as under sponsorship of national agencies. It would seem desirable that assistance be given to nature centers for schools by the open space and areas for recreation programs.

LAND-USE PROBLEMS

Refuges.—It is contended by conservationists that \$200 million is needed over a period of the next 10 years for acquisition of 4.5 million acres of wetlands by the Federal Government (Nat. Wildl. Fed., 1961:296). Part of the money would be spent to purchase lands for inclusion in the national wildlife refuge system, and part would be used to maintain duck production habitat. It is estimated that approximately \$50 million may be derived from Duck Stamp Sales during this period. Thus, an advance of \$150 million from the Federal Treasury is believed to be essential for adequate conservation of waterfowl. Long-range management includes the purchase of an additional 2.5 million acres by state governments. The total of 7 million acres is in addition to the 5.5 million acres presently in public ownership, 3.5 million acres by the Federal Government and 2 million acres by the states.

In response to this need for wetlands, a compromise bill was passed by the Senate and the House of Representatives. This bill, signed by the President on 4 October 1961, became Public Law 87-383. It authorizes \$105 million within seven years, beginning with the fiscal year 1962-63. Funds must be appropriated annually during this period.

This interest-free loan is to be returned to the Federal Treasury through payment of 75 per cent of the annual receipts from Duck Stamp sales, beginning in 1969.

At the present time, we have little information on the amount of appropriation which will be approved to carry out the legislation. The only information which we have is that the President's budget (sent to Congress on 18 January 1962) included an item of only \$7 million which, if approved, would be available starting 1 July 1962, to implement the intent of this law. It is thought that expenditures demanded by the world situation have caused a reduction of funds to be used for habitat acquisition.

At the 57th Annual Convention of the National Audubon Society, on 30 October 1961, Carl W. Buchheister proposed a \$2 Migratory Wildlife Conservation Stamp to be issued as an admittance pass for bird watchers, photographers, picnickers, and others who visit national wildlife refuges. The receipts would be used to add to federal refuges administered by the U.S. Fish and Wildlife Service. At a subsequent meeting, Mr. Buchheister further explained his proposal (Natl. Aud. Soc., 1961a).

This kind of fee system can be a useful tool in preventing too much public use of a refuge when too many trampling feet or too many automobiles would damage the habitat.

A certain number of citizens make special recreational use of the refuges because the refuges make wild animals accessible, available or visible. It seems only fair that these citizens make an extra contribution to the establishment and maintenance of the Refuge system.

It is believed that this proposal has additional value in that the receipts are likely to be more stable than those from Duck Stamps. The sale of Conservation Stamps will probably also show a direct relationship to increases in the human population and increased leisure time. The sale of Duck Stamps declines sharply when the waterfowl population is down and hunting tends to be unrewarding. In 1956-57, a record of 2,369,940 Duck Stamps were sold. The price was increased from \$2.00 to \$3.00, beginning 1 July 1959. In 1959-60, 1,628,365 Duck Stamps were sold, and, in 1960-61, 1,727,534. The low sales in 1959-60 are believed to have resulted more from the reduction of waterfowl numbers as a consequence of drought on the breeding grounds than from the increased price of the stamp. Even the modest increase in stamp sales from 1959-60 to 1960-61 is thought to reflect a slight improvement in waterfowl production during the breeding season in 1960.

Action to establish this proposal was taken by Congressman John D. Dingell when he introduced H.R. 10035, *National Wildlife Refuge Stamp Act*, on 1 February 1962. The bill requires the possession of a Duck Stamp or a Refuge Stamp for entry on national wildlife refuges. The revenues will go to the Migratory Bird Conservation Fund along with receipts from Duck Stamp sales. Existing law requires that this Fund be used for migratory game refuges. Conservationists will be pleased that a feature of the new act will permit revenues from sale of the Refuge Stamp to be used to acquire refuge areas for any species of wildlife in danger of extinction.

How fast the habitat-preservation program progresses will be determined largely by the wishes of local people, especially local and state governments. No land can be acquired under Public Law 87-383 without approval by the state involved. Removal of land from tax rolls is becoming a potential roadblock of enlarging dimensions in certain states. Bills (S. 2678 and S. 2770), drawn up to help solve the tax issue, are now pending.

Some progress was made during the year toward establishment of national wildlife refuges. The Wyandotte National Wildlife Refuge, which includes Grassy and Mammy Juda islands and adjacent marshy areas in the Detroit River near Wyandotte, Michigan,

was established on 3 August 1961 (Public Law 87-119). This new refuge is believed to be of particular value to the protection of Canvasbacks and Redheads. Best of all, establishment of the refuge did not involve expensive land acquisition, merely a transfer of jurisdiction from the Army Corps of Engineers to the U.S. Fish and Wildlife Service.

Ornithologists should be alert to other possibilities for procurement of refuge areas by transfer of jurisdiction. For example, the U.S. Bureau of Land Management administers 180 million acres of land in the Nation's western states and nearly 300 million in Alaska. Surely some of this has some value for refuge areas.

Subjects of other pending bills directly affecting the welfare of waterfowl include: (1) the permanent status to be given to Tule Lake, Lower Klamath and Upper Klamath National Wildlife Refuges in California and Oregon (S. 1988); (2) provision for fish, wildlife, and other recreational benefits in the Garrison Diversion irrigation project in North Dakota (S. 230); (3) protection for fish and wildlife in highway construction (S. 2767); and (4) qualifying state wildlife agencies to receive surplus property of the United States for promoting fish and wildlife management activities (H.R. 6301 and S. 2173). It is significant that S. 1988 was endorsed by a "do pass" recommendation by Secretary of the Interior, S. L. Udall, on 15 November 1961. The preservation of these refuges is considered essential to waterfowl conservation in the Pacific Flyway. At present, their usefulness is being threatened by land speculation and irrigation interests.

In a precedent-setting action, \$275,000 was approved in the Public Works Appropriations Bill for 1962 for the Choctaw National Wildlife Refuge in Alabama. The Corps of Engineers is proceeding with land acquisition in conjunction with the Jackson Lock and Dam Project. This significant development establishes the precedent that wildlife values shall be provided for by construction agencies as integral parts of projects. It is anticipated that the area will be made available to the U.S. Bureau of Sport Fisheries and Wildlife in 1962.

Two policy changes of the Federal Government should help recreation, fish, and wildlife receive greater attention on military lands (Wildl. Mgmt. Inst., 1962*b*:3) and at federal reservoirs (Wildl. Mgmt. Inst., 1962*c*:4). The Secretary of Defense issued a new directive dated 16 February 1962, on the management, conservation, and harvesting of fish and game resources on military reservations and facilities. Under the new directive, all base commanders are required to take the initiative to seek out help and to work effectively and in harmony with federal, state, and local conservation officials and with conservation agencies. Prior to the issuance of this statement, conservation programs had been carried out at the discretion of the individual commanders.

A new policy recently signed by the Interior and Army Departments changes the old policy which prevented these federal agencies from purchasing more than a narrow strip of land around impoundments. Both agencies now can acquire lands at federal reservoirs for public access, fish, wildlife, and recreational purposes. In view of the large number and wide distribution of construction projects of these two departments, potential benefits to wildlife could be substantial.

In Canada, two noteworthy advances have been made to benefit waterfowl. Six new wildlife refuges, totaling 37,870 square miles, were established in the western Arctic to protect waterfowl nesting grounds of continental significance. Establishment of the sanctuaries effects some measure of control but does not limit mineral exploration and development in the areas. Changes in habitat resulting from uncontrolled mining activity could seriously lower population levels of waterfowl. With the addition of the new refuges, Canada now has 108 migratory bird refuges covering more than 39,000 square miles (Wildl. Mgmt. Inst., 1962*a*:5).

During late spring of 1961, Secretaries Stewart L. Udall and Orville L. Frezman of the U.S. Departments of Interior and Agriculture, met with Alvin Hamilton, Canada's Minister of Agriculture, and Frank Dinsdale, Minister of Northern Affairs and National Resources. Following this meeting, a joint committee was appointed, with representatives from both countries, to study the waterfowl situation and to develop methods whereby the United States and Canada can work together to improve waterfowl-conservation programs.

Drainage Subsidies.—One of the inconsistencies in Federal policy to be singled out by President Kennedy in his message to Congress on 23 February 1961, was that of assisting with the drainage of wetlands, on the one hand, while purchasing such lands for wildlife refuges on the other. Federal encouragement of drainage has been described (Nat'l. Aud. Soc., 1961*b*) as follows:

The Department of Agriculture, through the so-called "Agricultural Conservation Program," now reimburses farmers for one-half the cost of draining wetlands. The Soil Conservation Service also provides technical (engineering) assistance. Thus, aided by funds collected from U.S. taxpayers, the drainage program has blotted out marshes far faster than the U.S. Fish and Wildlife Service, using Duck Stamp revenues, can acquire and save other marshes. Surveys have shown that subsidized drainage has been instrumental in destroying one-third of the small marshes in the nation's most productive waterfowl-nesting region, the prairie-pothole country of the Dakotas, Minnesota and eastern Montana.

In 1960, drainage proceeded on 77 per cent of 553 projects opposed by the Department of the Interior. In 1961, 87 per cent of 527 projects opposed by the Department were processed for drainage.

An attempt to amend the general farm bill to prevent the Secretary of Agriculture from giving assistance with a drainage project if the Secretary of the Interior considered such drainage materially harmful to wildlife failed narrowly. Several bills were almost immediately introduced into the House and one in the Senate (S. 2417) to accomplish the necessary prohibitions of assistance with drainage harmful to wildlife. One of these bills, H.R. 8520, was passed by the House on 12 September 1961. It amends the Soil Conservation and Domestic Allotment Act by adding a new subsection which reads as follows:

(e) The Secretary of Agriculture shall not enter into an agreement *in the States of North Dakota, South Dakota and Minnesota* to provide financial or technical assistance for wetland drainage on a farm under authority of this Act if the Secretary of the Interior has made a finding that waterfowl preservation will be materially harmed on that farm by such drainage and such finding identifying specifically the farm and the land on that farm with respect to which the finding was made, has been filed with the Secretary of Agriculture: *Provided, that the limitation against offering such financial and technical assistance shall terminate one year after the date on which the adverse finding of the Secretary of the Interior was filed unless during that time an offer has been made by the Secretary of the Interior or a State Government Agency to lease or to purchase the wetland area from the owner thereof as a waterfowl resource. The provisions of this subsection shall become effective July 1, 1962.*

It should be noted that the bill does not interfere with the land owner's freedom to drain at his own expense. At this writing, the bill is before the Senate Committee on Agriculture and Forestry. In a National Wildlife Federation press release dated 28 February 1962, Congressman Henry S. Reuss (Wis.), following examination of a report by Assistant Secretary of the Interior, Frank P. Briggs, is quoted as follows:

As a result of subsidized farm drainage in the "prairie pot-hole" area in the last ten years, almost half of the tri-state area's 1,350,000 acres of wetlands has been drained. Our North American waterfowl population is at a dangerously low point. The De-

partment of the Interior is now engaged in a crash program, fully backed by Congress, to buy up wetlands before it is too late. Yet while this is going on, the Department of Agriculture is busier than ever paying farmers to drain wetlands that Interior says ought to be saved.

The Department of Agriculture appears to be caught in a squeeze-play. Drainage to improve lands for agriculture is an approved, effective land-management practice desired by many landowners. The extent to which a given land-use practice is employed locally is determined by a committee of local citizens. With use of ACP funds for approved practices determined by such committees, we doubt that major changes in the drainage trend will take place under existing procedures. We believe a major change would occur in designated areas, if federal legislation relating to subsidized drainage was modified.

Recreation Areas.—There is considerable activity directed toward acquisition of state and federal lands, primarily for recreational purposes. It seems highly desirable that ornithologists endeavor to participate in this program by submitting proposals and by evaluating the relationship of acquired land to the bird fauna affected.

The first addition to the National Park System, since our one and only national seashore area at Cape Hatteras in North Carolina was established in 1937, was assured by President Kennedy when he signed into law on 7 August 1961, legislation to establish the Cape Cod National Seashore.

A bill (S. 543) which authorizes the U.S. Park Service and U.S. Forest Service to study potential seashore recreational areas and bills (S. 476 and H.R. 2775) to establish the Point Reyes National Seashore in California have been passed by the Senate. The Point Reyes bill has been reported favorably by the House Interior and Insular Affairs Committee and, at this writing, awaits final passage.

Proposals to establish the Sleeping Bear Dunes Recreation Area or Seashore in Michigan, the Great Basin National Park in Nevada, the Prairie National Park in Kansas, and to protect the Indiana Dunes in Indiana, the Oregon Dunes in Oregon, and an Ozark Refuge Area in Missouri are now before Interior and Insular Affairs Committees of both the House and Senate. S. 4, to establish the Padre Island National Seashore in Texas, has been reported favorably by the Senate committee.

It should be remembered that these seashore areas will safeguard some habitat for shore birds and waterfowl.

To "increase public benefits," bills (H.R. 1171 and H.R. 77) have been introduced to permit recreation as an incidental or secondary use of national wildlife refuges, fish hatcheries, game ranges, and other areas. The Fish and Wildlife Service now lacks specific authority to provide minimum facilities such as picnic tables, fireplaces, etc., for the more than 10 million people presently visiting the areas annually (Wildl. Mgmt. Inst., 1961a:5-6). An amended version of H.R. 1171 has been reported by the House Committee on Merchant Marine and Fisheries.

A provision of the Housing Act of 1961, Public Law 87-70, authorizes \$50 million in federal funds to assist cities and counties to preserve open spaces for parks and playgrounds. In view of the rapidly expanding urban areas, this legislation could be of considerable significance to birdlife and conservation education efforts. Outdoor education areas could be maintained within reasonable distances from schools.

There is evidence of a growing awareness on the part of state governments of such conservation needs as parks, recreation areas, and conservation programs. Voters in New York and New Jersey have approved bond issues of \$75 million and \$60 million, respectively, for acquiring and developing recreation facilities, and California is consider-

ing a \$100 million bond issue for beach and park purchase. In Pennsylvania, legislation (Project 70, so-called because the target date is 1970) has been introduced in the General Assembly which, if passed and later endorsed by the voters, would make possible the purchase of lands for hunting and fishing sites, parks, and scenic areas. Florida has initiated a program to develop about a half-million acres of state-owned land for game preserves, parks, recreational areas, water-retention sites, and natural history preserves. Minnesota has a \$1.00 surcharge on the small game hunting license, the proceeds to be used for habitat acquisition. In South Dakota, \$9.00 of the \$25.00 nonresident small-game hunting-license fee is used for a habitat-management program. In Wisconsin, the State Legislature considered, with bipartisan support, a proposed program for acquiring, developing, and maintaining suitable state lands as parks, forest recreation areas, fish and game habitat, youth conservation camps, and other allied purposes. A 1-cent tax on cigarettes was legislated which is expected to yield \$50 million over the next 10 years. About \$9 million would be used for fish and game habitat as provided for in Chapter 427 of the Laws of Wisconsin, 1961. It seems likely that this program will have an important effect on the development of Wisconsin's system of "scientific areas"; 32 have now been officially designated, but approximately 300 will need to be set aside by 1980 as outdoor laboratories and study areas, according to an estimate made by Albert Fuller. A Middle Western group of citizens has also formed Wetlands for Wildlife to complement existing state and federal programs of habitat preservation and restoration. During March, this organization turned \$2,600 over to the Wisconsin Conservation Department for land acquisition purposes. In Michigan, a cigarette tax proposal similar to that in Wisconsin is under study.

Wilderness Bill.—Legislation to provide a National Wilderness Preservation System has been in the making for a long time. News that the wilderness bill, S. 174, had passed the Senate on 6 September 1961, by the overwhelming margin of 78 to 8 was most encouraging. Several crippling amendments were defeated, but another weakening amendment which permitted the Federal Power Commission to license power dams in wilderness areas was accepted. Hearings on the bill were held in the West during the fall by the Public Lands Subcommittee of the House Committee on Interior and Insular Affairs. The results of these hearings are reported upon in "Hearings before the Committee on Interior and Insular Affairs, United States Senate, Eighty-seventh Congress, First Session, on S.174, February 27 and 28, 1961" (United States Congress, 1961).

Some of the major proponents who appeared as witnesses during the hearings on the wilderness bill were: Carl W. Buchheister, President, National Audubon Society; Sigurd F. Olson, former president of the National Parks Association, at present a member of the advisory board to the Secretary of the Interior on parks and monuments, and consultant to the President's Quetico-Superior Committee; Olaus J. Murie, Director, The Wilderness Society; J. W. Penfold, Conservation Director, Izaak Walton League of America; Howard Zahniser on behalf of Trustees for Conservation; Louis S. Clapper, Chief, Division of Conservation Education, National Wildlife Federation.

Among those speaking for the opposition were: W. Howard Gray, Chairman, Public Lands Committee of the American Mining Congress; Russell Chadwick, Exploration Geologist, on behalf of the Northwest Mining Association; Leonard E. Pasek, Vice Chairman, Conservation and Management of Natural Resources Committee, National Association of Manufacturers; Jay Gruenfeld, Tacoma, Washington, Chamber of Commerce; W. D. Hagenstein, Executive Vice President, Industrial Forestry Association, and William C. Hammerle, Forester, American Pulpwood Association.

Opposition by commercial interests has been severe. C. R. Gutermuth (Wildl. Mgmt. Inst. 1962d:3) recently expressed the belief that opponents to wilderness

. . . speak for those commercial interests that want to get the last dollar from the timber, forage, minerals, and other resources in the pitifully few acres of irreplaceable wilderness. . . .

The fury of the opposition is centered on S.174 . . . because it is the principal public lands legislation now before Congress. Their distortions echo time-worn clichés—destruction of community growth, loss of revenues and taxes, damage to timber interests, interference with livestock operations, discrimination against miners. All these have been disproved before and will be disproved again.

S.174 would create no new federal agency. It would not interfere with the purposes for which the wilderness areas in the national forests, parks, and wildlife refuges already may be used. It would not surrender congressional prerogatives in public land matters. In no way would it disrupt established, legitimate activities of any commercial interest on the public lands.

The bill merely provides a procedure whereby federal lands, already in wilderness condition, shall continue to serve their present national forest, park, and wildlife refuge purposes, but in a way that would preserve their wilderness character.

The most recent information available indicates that the wilderness bill is still being held by the House Committee on Interior and Insular Affairs.

A concise but comprehensive account of this legislation can be found in a special issue of *THE LIVING WILDERNESS* for Autumn-Winter, 1961-62 (available from The Wilderness Society, 2144 P. Street, Washington 7, D.C.). The issue contains: (1) designation of some advocates and opponents of the bill; (2) S.174, "ordered to be printed as passed" by the Senate; (3) pertinent discussions by Clinton P. Anderson, Michael Nadel, and Charles Callison; (4) quotes from leading newspapers and informed individuals in the field of natural resources; (5) a report by the U.S. Senate Committee on Interior and Insular Affairs (maps and charts); and (6) expressions of minority views.

Habitat Modification.—Operations which are bringing about extensive modification of environment are in motion. Attention has been directed to the use of herbicides to relieve pines from competition with hardwoods in southern United States and the expansion of pasture areas in southeastern United States (Scott, 1959:387-390). Adolph Stebler (personal communication, 5 March 1962) has called attention to the eradication of shrubs advocated in range-improvement programs and the possible serious consequences for the Lesser Prairie Chicken, which is considered an endangered species, and possibly other forms of birdlife. Park (1961) has advocated study of animals in environment modified by predetermined design. The practices mentioned above provide an opportunity for ornithologists to study the response of birds to environmental modifications on a scale which would be prohibitive to the budgets of most research projects. Unfortunately, most research groups lack the flexibility to tackle these essential, basic investigations as opportunities develop.

On the continental United States, we are all well aware of examples of encroachment on wildlife areas by highways, airports, waste-disposal areas, urban development, and industry. In many cases, this is not intolerable because there are alternate courses of action which may be taken. An event which is taking place on St. Croix Island of the Virgin Islands, however, is of a more serious nature. The Committee has been advised that the Governor of the Virgin Islands has signed a contract, ratified by the Legislature, to turn over to the Harvey Aluminum Company 700 acres of land and also Krause Lagoon. The company proposes to import bauxite, separate the alumina for reshipment, and dump the separated clay into the lagoon. The mangroves in Krause

Lagoon presently support the only remaining nesting colony of White-crowned Pigeons in the Virgin Islands. The flatland around the lagoon is also the only place on St. Croix in which the Antillean Nighthawk has been collected. The lagoon offers the best bone fishing known in the Virgin Islands and is the most productive area for the local clam.

It is rapidly becoming evident that the delicately balanced ecology of southern Florida is being damaged beyond repair by water manipulation attending expansion of residential, agricultural, and industrial projects. The water which percolates southward from Lake Okeechobee is being diverted, impounded, and consumed to such an extent that it is doubtful whether the wetland flora and fauna presently characteristic of the region can be maintained. Such recreational areas as the Everglades National Park, Florida Everglades Conservation Areas, Loxahatchee National Wildlife Refuge, and the National Audubon Society's Corkscrew Swamp Sanctuary are endangered. Some observers believe that this water manipulation has already advanced beyond the point of no return.

For the first time, the 1962 Agricultural Conservation Program included cost-sharing practices to benefit wildlife on individual farms. Up to one-half the cost of eligible practices are paid by ACP. Permitted wildlife practices include: (1) restoration of wetlands of value to fish and wildlife; (2) construction of water areas; and (3) planting of vegetation that provides food, shelter, and habitat for game animals. Regulations allowing for development and approval of additional wildlife-conserving practices on farms are appended to a description of the "G practices . . . and other wildlife practices with substantial soil- and water-conservation values as well as wildlife benefits to the farmlands of the persons who carry them out" (Wildl. Mgmt. Inst., 1961*b*:3). State and county committees that handle other phases of the over-all ACP program determine which, if any, wildlife practices are included in state and county programs. Hence, to a large degree, local people determine the number of wildlife practices employed.

Other adjustments made or pending in the agricultural program of the United States have benefited or will benefit wildlife, including waterfowl. In his State of the Union Message, President Kennedy called for a new, long-range conservation and recreation program. Later, in a message on management of agricultural resources, the President requested the use of unneeded crop lands for wildlife and recreational developments. He reported:

In spite of a 65 million increase in population by 1980, our farms will be able to produce all we need with 50 million fewer acres than we have in cropland today (Natl. Wildl. Fed., 1962:33).

At a conference on Land and People, called by Secretary of Agriculture, Orville L. Freeman, a discussion was held on ways of designing public policy to encourage the maximum effective use of resources in rural America for service to all Americans (Wildl. Mgmt. Inst., 1962*e*:4). Bills (S. 2786 and H.R. 10010) to implement the President's farm bill are now pending.

HABITAT POLLUTION

That the Surgeon General established a Committee on Environmental Health Problems during August 1961, is believed worthy of mention because these problems relate to wildlife conservation. Members of the Wilson Society may wish to examine the published report of the Committee on Environmental Health Problems (U.S. Pub. Health Ser., 1962). The Committee (U.S. Pub. Health Ser., 1962:1) concluded:

That a national need exists for establishment and maintenance of a vigorous and integrated effort to maintain controls over the human environment compatible with projections of change in both population and the environment itself.

That the current "categorical" approaches represented by Public Health Service divisional programs are incapable of providing either (a) the necessary cognizance of combined multiple effects of environmental impacts or (b) the depth of effort required by individual divisional programs.

That accommodation to the national needs in environmental health will require the establishment of a strong focal center adequately staffed and equipped to prosecute an effective and integrated program within the Public Health Service and to manage and coordinate a strong extra-mural research, training, and technical support program utilizing the available institutional resources of the nation.

That an adequate legislative basis for a sufficient national program in environmental health does not exist at present.

Pesticides.—The thorough review of the effects of insecticides on terrestrial bird life in the Middle West by Hickey (1961) leaves only relatively recent developments for evaluation by the Committee. In addition to Hickey's review, Brown's (1961) appraisal of mass insect-control programs is recommended for reading.

The National Academy of Sciences-National Research Council has published reports (Part I, Evaluation of Pesticide-Wildlife Problems, and Part II, Policy and procedures for Pest Control, designated Publication 920-A and Publication 920-B, respectively) by two subcommittees of the Academy's Committee on Pest Control and Wildlife-Relationships. They may be obtained from the Printing and Publishing Office, NAS-NRC, 2101 Constitution Avenue, Washington, D.C., at \$1.25 each.

Part I, Evaluation of Pesticide Wildlife Problems, has been examined. We are disappointed in it. The stature of the National Academy of Sciences-National Research Council will not be enhanced by this publication. The fear expressed in the last annual report of the Conservation Committee (Scott et al., 1961:316) is realized. The report is neither detailed nor documented, and there is a stiffness about it which marks it as a forced compromise instead of an unbiased, philosophical evaluation of the problem. Perhaps this could have been avoided if the report had been prepared by scholars who were not so closely associated with the problem. An important theme centers around a defense of pesticides. No one stands to profit from this, and something is lost. The problem, as we see it, does not lie with whether the wise use of pesticides in general is justifiable. The problem lies in the question of whether the utmost intelligence is employed in decisions to use or not to use a pesticide in a particular situation and, if so, whether operating specifications such as kind and form of pesticide, rate of application, time of application, etc., reflect consideration of wildlife and other values.

With the announcement of the formation of a Federal Pest Control Review Board, 1 October 1961, another step was taken toward reduction of inconsistencies in federal policy.

By contrast with the National Academy of Sciences-National Research Council study of pest control and wildlife relationships, we hold forth more hope for improvement of this serious problem through the work of the Federal Pest Control Review Board. While the Board is advisory in nature, it was established at the request of the President and also reflects the authority of the offices of the participating Secretaries. The Board consists of two members from each of the following Departments: Agriculture, Defense, Interior, and Health, Education, and Welfare. The establishment of this Review Board provides wholesome evidence of recognition of an important problem. It has enormous potential for public good. It is to be hoped that the committee will prove effective in eliminating, or at least restraining, large-scale pest control operations which are poorly conceived or poorly executed and which ignore or neglect wildlife and other values. It is probable that the action of the Board will also affect state control operations by

setting an example of carefully planned and executed control measures and by the fact that many large-scale operations constitute cooperative federal and state programs.

Further evidence of concern for coordination is the establishment of a National Mosquito Control-Fish and Wildlife Coordination Committee. The objectives of the committee have been set forth as:

1. Coordinate mosquito control and fish and wildlife management policies on national, state, and local levels.
2. Gather and disseminate relevant information and suggest standards on mosquito-control techniques consistent with sound fish- and wildlife-management objectives.
3. Gather and disseminate relevant information and suggest standards on fish- and wildlife-management techniques consistent with sound mosquito-control objectives.
4. Stimulate needed research and demonstration projects relating to mosquito-control and fish- and wildlife-management practices.
5. Sponsor suitable meetings to further the purposes of this Committee.
6. Cooperate with agencies, organizations, and all others whose activities and interests may relate to those of this Committee.

There has been a continuing failure of Midwest entomologists to explain why sanitation programs will not work in this region without complementary use of insecticides in the control of Dutch elm disease. A small trend toward the substitution of methoxychlor for DDT should give some relief to the songbird populations that have been decimated by heavy applications of DDT in Middle Western cities and their suburbs; but the long-term effects of DDT usage have yet to be evaluated under Midwest conditions. In the eyes of wildlife conservationists, the DED-control program in this region continues to remain in a state of confusion.

Oil.—Last year the Conservation Committee reported that the *International Convention for Prevention of the Pollution of the Sea by Oil, 1954*, had received the necessary two-thirds favorable vote of the Senate for international treaties on 16 May 1961, and that formal ratification was awaiting implementing legislation. This legislation was provided when the Senate passed S. 2187 on 14 August 1961, and when the House passed an identical measure, H.R. 8152, on 21 August 1961. It received formal ratification and became Public Law 87-167 when signed by the President on 30 August 1961. The instrument of acceptance was deposited with the Intergovernmental Maritime Consultative Organization on 8 September 1961. It came into force with regard to the United States three months later on 8 December 1961. The terms of the law make "it unlawful to discharge oil in zones varying from 20 to 100 miles from coast lines except under specified conditions" (Natl. Aud. Soc., 1961c). It seems apparent that this law will mitigate against mortality among marine birds. The nature and extent of damage caused by oil pollution of the seas has recently been reviewed by Hawkes (1961). It will not affect potential oil pollution from tankers sunk during World War II for which

it is estimated that 15 to 20 years may pass before sea pressure finally bursts the steel casings to release hundreds of gallons of imprisoned oil (Tottenham, 1959:28).

We must not forget that bird mortality resulting from oil pollution is not limited to the high seas. In January of 1962, about 1,000 ducks, Mallards (5%) and Black Ducks (95%), were estimated to have been killed by oil pollution in Peoria Lake along the Illinois River. Hunt (1961:25) concluded from examination of 2,173 dead ducks on the lower Detroit River during seven winters that about 21 per cent had died from oil pollution. R. W. Vaught of the Missouri Conservation Commission, on 20–21 December 1961, while investigating a report of ducks and geese rendered flightless along the

Missouri River found evidence of some oil pollution from Jefferson City to Kansas City, the oil slick being virtually bank to bank from Boonville to Miami (unpubl. rept.). Twenty-four oil-soaked Blue and Snow Geese were collected. Three of 40 to 50 Mallards seen were oil-soaked.

Federal Water Pollution Control Act.—During 1961, the 87th Congress amended the Federal Water Pollution Control Act of 1956 to provide for more effective enforcement, expansion of research, increased financial assistance to interstate agencies, states, and municipalities. The President signed this legislation into Public Law 87-88 on 20 July 1961. Appropriations to support the improved version of the Act were also approved. This will provide a means of restoring wildlife water areas which have become virtually unusable or hazardous as a result of excessive pollution.

Aquatic Pollution and Food Chains.—The effect of pollutants on aquatic-plant and animal-food organisms utilized by birds needs investigation. Frank C. Bellrose, Section of Wildlife Research, Illinois Natural History Survey, reports (Bellrose, personal communication) that populations of Ring-necked Ducks, Canvasbacks, Lesser Scaups, Goldeneyes, and Ruddy Ducks declined sharply in the Illinois River Valley from 1954 to 1955 while not declining similarly in the Mississippi River Valley. The average of peak numbers of Lesser Scaups and Canvasbacks for the period 1949-54 was reduced by 89 per cent and 94 per cent, respectively, for the period 1955-60 in the Illinois River Valley; by comparison, in the Mississippi River Valley the average of peak numbers of Lesser Scaups for the same 6-year period increased by 3.6 per cent and, for Canvasbacks, decreased by only 6 per cent. In the light of this, it is of interest to find evidence that the molluscan population in a bottomland lake along the Illinois River declined sharply between 1952 and 1954 and remained severely reduced during 1954-58 (Paloumpis and Starrett, 1960: 431-432). The latter investigators express the opinion that this was possibly a natural decline following overpopulation but concede that it also may have been induced by pollution of the river with one or more of the new organic chemical exotics such as detergents. Milton B. Trautman (personal communication 9 March 1962) is obtaining evidence in Ohio that "detergents are becoming an increasing threat to . . . fish life, both directly and indirectly through destruction of aquatic insects and other fish foods."

Research on Water Pollution.—A broad range of research is now in evidence on means of preventing or combating the effects of water pollution. Federal, state, and local governments as well as industrial groups are taking part in the effort to solve the complex problems caused by the discharge of foreign matter into lakes, rivers, and streams.

Of the two major sources of water pollution, sewage, and industrial waste, the latter presents the most problems. Accordingly, it is encouraging to note that industry is increasingly active in its efforts to safely dispose of its wastes. A spokesman for the National Association of Manufacturers recently stated that part of these efforts are in self-defense, but a great part are in self-interest. Many plants now being built are equipped with better facilities for treatment than required by law because it is more economical to plan them from the start than to add them later. Improved community relations are another important element in the reduction of water pollution by industry. The wood pulp and paper, fermentation, and petroleum industries are examples of industrial groups which have made significant advances in the reduction of their wastes (N.Y. *Times*, 25 March 1962).

CONTROL OF BIRD POPULATIONS

There is great need for caution in bird-control programs. This is another of those subjects which bring emotions into play, and action based on emotion must be avoided.

Buchheister (1961:174) refers to proposed legislation on bird-control programs in Connecticut which would remove protection from all species of birds "when in the act or when attempting to destroy cultivated crops." Such a proposal is unrealistic. Relatively few species of birds are likely to do notable damage to crops, and the proposed legislation mentioned, therefore, constitutes a step backward in civilized, practical conservation. On the other hand, the farmers' problem must be considered. While the nation must contend with crop surpluses, the individual farmer who loses part of his crop to bird depredation may be faced with bankruptcy. Most farmers cannot identify birds, except for very common species, so it is as unrealistic to designate by law the species from which he may protect his crops as it is to remove from protection "all species of birds."

Buchheister (1961:174) also points out that

The fearsome lengths to which the "control" psychosis can go is indicated by a suggestion that has been made seriously by agricultural geneticists. Some geneticists have said, with reference to birds labeled as "farm pests," that the time is near at hand when an entire species may be eliminated through introduction of fatally defective genes.

It is a regrettable truism of human history that man does not always possess knowledge essential to the intelligent conduction of his action programs. The possibility of eliminating whole bird populations with gene-influencing techniques points up the question of the ecological relationship of one species to another; when we eliminate the one, what have we done to others in the same ecosystem? We continue to need basic deep-probing ecological research.

To further emphasize this need, we can point to the increasing interest in what might be called "positive bird control," the encouragement of high populations of certain species of birds for the purpose of predation on insects, that is, bird control for insect control. MacLellan (1961: 17-25) discussed an attempt to increase populations of *Dendrocopos* Woodpeckers in Nova Scotia orchards for the purpose of eliminating codling moths (*Carpocapsa pomonella*). It is pertinent to mention here the recent translation (to English) of a Russian (U.S.S.R., 1956) publication, "Ways and Means of Using Birds in Combatting Noxious Insects." At this point, we do not even know how to manipulate bird populations effectively and economically, let alone the effects of doing so, but manipulation of bird populations may ultimately prove more effective than the use of chemicals for controlling insects. In either case, caution cannot be overemphasized, because we are playing, so to speak, with ecological dynamite.

The problem of birds at airports continues to crop up and could, indeed, flare up at any time in the event of an accident. Barnes (1961:83-84) discusses this matter, pointing out a few incidents such as the closing of a runway at Idlewild Airport because of flocks of Tree Swallows in the area. He suggests that we have at least three responsibilities relating to the problem: (1) to aid in understanding the reasons why birds congregate on airports and how control of habitat may remove or reduce the danger; (2) to support sound measures for removing hazards to safety which involve birds; (3) to oppose ineffective programs which bring about the needless killing of birds. Again, we are dealing basically with an ecological problem—that of creating airport habitats which are not attractive to birds.

Throughout any appraisal of this problem, we are constantly reminded of our continuing need for good, deep, ecological, and behavioral research to enable us to make intelligent recommendations for bird control.

ENDANGERED SPECIES AND SUBSPECIES

Giant Canada Goose.—Exciting news for bird conservationists has just been realized. It has long been assumed that the large race of the Canada Goose that once nested in the Great Plains of the United States—the Dakotas, Minnesota, and, presumably, adjacent Manitoba, and south to western Tennessee—has been extinct since around the turn of the century. Delacour (1951:5) described the race on the basis of early specimens and named it *Branta canadensis maxima*. Three years later he (Delacour, 1954:163) wrote: "The Giant Canada Goose appears to be extinct."

In January of this year, the Minnesota Department of Conservation with the cooperation of the U.S. Bureau of Sport Fisheries and Wildlife invited Harold C. Hanson of the Illinois Natural History Survey, Urbana, to study the Canada Geese wintering at Rochester, Minnesota. Dr. Hanson had been observing these geese each autumn for a number of years and was convinced on the basis of his 18 years of experience with Canada Geese of the Mississippi Flyway (*Branta canadensis interior*) that the geese at Rochester were indeed of a different population. Over a hundred of the geese that winter in the vicinity of Rochester, Minnesota, and roost nightly on the lake in the city park were studied and banded. Measurements, coloration, and weights of these geese agreed closely with Delacour's description of *Branta canadensis maxima*. Skins of the ten geese sacrificed for various studies were recently compared by Dr. Hanson with the series of *maxima* in the American Museum of Natural History, the National Museum, and the Chicago Museum of Natural History. His findings make it certain that the Rochester flock, now happily totaling 6,000 birds, is indeed *maxima*.

Prairie Chickens.—The Greater Prairie Chicken in Illinois, Indiana, Missouri, and Wisconsin remains in danger of local extirpation; however, considerable progress toward reduction of this danger has been made in Missouri and Wisconsin by acquisition and protection of undisturbed nesting areas.

Last winter, Frederick N. and Frances Hamerstrom reported a marked and very encouraging increase in the number of Wisconsin prairie chickens, largely a result of modification of habitat by predetermined design. Acquisition of key areas for chicken management is proceeding at an accelerated rate in the central part of the state, all of the funds being raised by private subscription. Much credit for this interesting program goes to Paul J. Olson of The Prairie Chicken Foundation and to Willis G. Sullivan of the Society of Typanuchus Cupido Pinneatus, Ltd. As of 1 March 1962, 3,300 acres had been acquired by these organizations and their conservation allies in Wisconsin at a total cost of \$98,000.

Larry R. Gale, Chief, Division of Fish and Game, Missouri Conservation Commission, recently reported (letter to Max McGraw, 25 September 1961):

Our surveys indicate that there are about 5,000 prairie chickens in Missouri, mainly in the southwestern part of the State. We have been well pleased with apparent increases in the numbers of chickens in that area recently.

A discouraging evaluation of the situation in Indiana has come from R. E. Mumford (personal communication, 1 March 1962) who believes that

This species is about gone in Indiana, and there is absolutely no hope for it. . . . The remnant population, all on private land, is going to be further subjected to adverse land-use practices this spring, when one of the few remaining wintering areas will be plowed.

In Illinois, the breeding population was roughly estimated to have been about 2,000 birds in the spring of 1961, primarily in southeastern Illinois. The following table docu-

TABLE I
POPULATION TRENDS FOR GREATER PRAIRIE CHICKENS IN INDIANA AND ILLINOIS AS
INDICATED BY CENSUSES OF MALES ON BOOMING GROUNDS

Year	Number of booming males	
	State-wide counts in Indiana	Jasper County study area, Illinois
1936		76
1937		65
1938		90
1939		131
1940		67
1941		95
1942		66
1943		44
1944		58
1945		88
1946		92
1947		54
1948		37
1949		44
1950		37
1951	325	43
1952	221	40
1953	196	47
1954	184	38
1955	140	33
1956	119	29
1957	124	23
1958	92	23
1959	87	30
1960	49	28
1961	21	7

ments the decline of prairie chicken populations in Indiana and for one study area in Illinois. The data for Indiana were supplied by R. E. Mumford; those for Illinois by R. E. Yeatter.

Clarence Cottam (personal communication, 5 March 1962) recently appraised the status of the Attwater Prairie Chicken as follows:

In the past 30 years, I suspect the Attwater has decreased by 90-95%. Its range, likewise, has shriveled almost proportionately. The species now occurs only in a number of disjoint localities. I fear it is on the road out unless progressive action is taken.

Eagles.—Growing concern about the status of the Bald Eagle led to a winter inventory in January 1961. The National Audubon Society (1961*d*) reported that the first inventory "produced an actual count of 3,642 eagles in the 48 contiguous states." These birds were largely concentrated in three areas: Middle West, 1,790 or 49 per cent; Pacific Northwest, 742 or 20 per cent; and Florida, 392 or 10 per cent. An inventory has not been attempted in Alaska. Because young Bald Eagles, until they develop the white head and

tail feathers in their fourth year, are killed by hunters mistaking them for the unprotected Golden Eagle which is being shot to supply a demand for eagle feathers among craft hobbyists and souvenir hunters, legislation to amend the Bald Eagle Act of 1940 has been introduced in the Senate (S.J. Res. 105) and the House of Representatives (H.J. Res. 479, 487, and 489). The Senate Joint Resolution is presently before the Senate Commerce Committee. H.J. Res. 489, the bill to protect the Golden Eagle was passed by the House on 2 April. It awaits Senate action.

King Rails.—Milton B. Trautman has reported concern over a drastic numerical decrease in the King Rail population in Ohio and other northern states. Between 1922 and 1930, Trautman (1940:229) obtained data indicating that more than 50 pairs of King Rails nested annually in the Buckeye Lake area, Ohio; thereafter, until 1940, there were 45 or fewer nesting pairs. The last breeding rails were two or possibly three pairs observed by Trautman in 1959 (personal communication, 9 March 1962). Inasmuch as many states have open seasons on rails, including the King Rail, it would seem highly desirable for ornithologists to give consideration to the status of the King Rail.

Two Eskimo Curlews were seen together near Galveston, Texas, by George H. Lowery on 31 March 1962. William B. Robertson (personal communication, 27 March 1962) advised that "Latest reports this spring indicate that the Florida population of the Everglade Kite numbers 7 individuals."

List of Endangered American Birds.—Roger T. Peterson (personal communication, 24 February 1962) recently listed "North American birds which are endangered because of low numbers or restrictive or demanding environmental conditions" as follows:

Nene

Kalua (Hawaiian duck)

Laysan Duck (in good shape at the moment)

Tule White-fronted Goose

Aleutian Canada Goose

Mexican Duck

Ross' Goose (it must be watched, although probably not endangered)

Kirtland's Warbler (approximately 1,000 individuals at this time; well studied)

Bachman's Warbler (a puzzler)

Whooping Crane (receiving good attention)

Lesser Prairie Chicken

White Pelican (not endangered yet but should be reassessed)

Trumpeter Swan (perhaps safe now)

Puerto Rican Parrot

Harlequin Quail

Hudsonian Godwit (seems to be in much better shape now than a few years back)

Ivory-billed Woodpecker (any left? What about recent reports from east Texas?)

Swallow-tailed Kite

Everglade Kite (low U.S. population but abundant in the American tropics)

California Condor (being studied again by National Audubon Society)

Golden Eagle (What is the U.S. population? The Bald Eagle is being studied at this time but not the Golden.)

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